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EXAMINER

HUYNH, CONG LAC T

ART UNIT PAPER NUMBER

2178

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/595,288	<b>Applicant(s)</b> FIEDOROWICZ ET AL.	
	<b>Examiner</b> Cong-Lac Huynh	<b>Art Unit</b> 2178	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 May 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to communications: amendment filed 5/21/04 to the application filed 6/15/00.
2. Claims 1-45 are pending in the case. Claims 1, 16 and 31 are independent claims.
3. The objections of the specification have been withdrawn in view of the update of the status of the co-pending application.
4. The objection of the drawings has been withdrawn in view of the amendment of figure 6.
5. The objections of claims 31 and 33 have been withdrawn in view of the amendment of claims 31 and 33.
6. The rejections of claims 2-5, 9-10, 15, 17-20, 25, 30, 32-35, 40, 45 under 35 U.S.C. 112, second paragraph have been withdrawn in view of the amendment of these claims.
7. The rejections of claims 1-9, 11-14, 16-24, 26-29, 31-39, 41-44 under 35 U.S.C. 103(a) as being unpatentable over Helgeson in view of Applicants' arguments.
8. The rejections of claims 10, 25, 40 under 35 U.S.C. 103(a) as being unpatentable over Helgeson and further in view of Renard have been withdrawn in view of Applicants' arguments.
9. The rejections of claims 15, 30, 45 under 35 U.S.C. 103(a) as being unpatentable over Helgeson and further in view of W3C have been withdrawn in view of Applicants' arguments.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-8, 14-24, 29-38, 44-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Walsh, *The Extensible Style Language: {XSL} Styling XML Documents*, Web Techniques, Jan 1999, vol. 4, iss. 1, pg. 49, 5 pgs, printed from ProQuest as pages 1-10.

Regarding independent claim 1, Walsh discloses:

- identifying a plurality of subset style sheets based on content of the electronic document (**page 7**: *"In this example, we'll use XSL to transform our XML document ... XSL knits all the fragments together to form the complete result tree ... Each template in our style sheet 'instantiates' a small part of the result tree ... Every element in the template is either an XSL processing instruction ... each element is copied into the result tree until xsl:process-children is encountered" ... when xsl:process-children is encountered, the XSL processor processes each of the children of the current node. For each node, it finds the matching template and instantiates it. The sequence of instantiated templates is placed in the result tree at the location of ..."*; the fact that each part of the document with associated style sheet is instantiated in the template shows that a plurality of subset style

sheets are identified based on the content of the electronic document since all XML documents can be represented as trees – as mentioned in page 3 – and thus, each document has more than two elements, and accordingly a plurality of subset style sheets of these elements are identified)

- merging the plurality of subset style sheets to generate the composite style sheet (page 7: *"In this example, we'll use XSL to transform our XML document ... XSL knits all the fragments together to form the complete result tree. The Document Element.... Each template in our style sheet "instantiates" a small part of the result tree ... Every element in the template is either an XSL processing instruction ... each element is copied into the result tree until xsl:process-children is encountered" ...; knitting all of the fragments together where each fragment is a style sheet template for a part of the XML document to form the Document Element inherently shows that the style sheet of the document, which is equivalent to the composite style sheet, is generated by merging all the fragments which are the subset style sheets of the portions of the XML document)*

Regarding claim 2, which is dependent on claim 1, Walsh discloses that the plurality of subset style sheets includes a global style sheet and other subset style sheets, and wherein merging the plurality of subset style sheets includes inserting the other style sheets into the global style sheet to generate the composite style sheet (page 3: *"the XSL processor begins at the root node in the source tree and processes it by finding the*

*template in the style sheet that describes how that element should be displayed. Each node is then processed in turn until there is no more nodes left to be processed ...*"; the fact the XSL processor starts at *the root node* until the last child node to process the style sheet templates implies the plurality of style sheets includes a global style sheet, which is the style sheet at the root node of highest level, and other subset style sheets of the children nodes; **page 7**: *"In this example, we'll use XSL to transform our XML document ... XSL knits all the fragments together to form the complete result tree. The Document Element.... Each template in our style sheet "instantiates" a small part of the result tree ...*"; knitting all of the fragments together where each fragment is a style sheet template for a part of the XML document to form the Document Element inherently shows that the style sheet of the document, which is equivalent to the composite style sheet, is generated by merging all the fragments which are the subset style sheets of the portions of the XML document; also, copying each element in the template into the result tree until `xsl:process-children` is encountered shows inserting the other style sheets into the global style sheet of the document).

Regarding claim 3, which is dependent on claim 2, Walsh discloses that inserting the other subset style sheets of the plurality of subset style sheets into the global style sheet includes converting a root template in each of the other subset style sheets to a child template (**page 7**: *"when `xsl:process-children` is encountered ... for each node, it finds the matching template and instantiates it. The sequence of instantiated templates is placed in the result tree at the location of the `xsl:process-children` element in the*

*template*; placing the sequence of said instantiated templates in the result tree inherently shows that the root template in the subset style sheets is converted to a child template since it was well known that a child node inherits the information from the root node, which is its ancestor).

Regarding claim 4, which is dependent on claim 3, Walsh discloses inserting the other subset style sheets of the plurality of subset style sheets into the global style sheet further includes adjusting match phrases of embedded child templates and references in each of the other subset style sheets (**page 8**: “*The xsl: process instruction processes only selected children (or selected nodes from elsewhere in the tree). The xsl: process element has a required select attribute. All of the elements in the source tree that match the pattern specified in the select attribute are processed, and their instantiated templates are inserted into the result tree ...*”).

Regarding claim 5, which is dependent on claim 2, Walsh discloses that the other subset style sheets are inserted following a root template of the global style sheet (**page 7**: “*when xsl:process-children is encountered ... for each node, it finds the matching template and instantiates it. The sequence of instantiated templates is placed in the result tree at the location of the xsl:process-children element in the template*; placing the sequence of said instantiated templates in the result tree inherently shows inserting the subset style sheets following a root template of the global style sheet; **page 8**: “The xsl: process instruction processes only selected children (or selected nodes from elsewhere

in the tree). The xsl: process element has a required select attribute. All of the elements in the source tree that match the pattern specified in the select attribute are processed, and their instantiated templates are inserted into the result tree ...”).

Regarding claim 6, which is dependent on claim 1, Walsh discloses that identifying a plurality of subset style sheets includes parsing the electronic document into a document object model and examining first level child elements of the document object model (**page 2**, last two sentences to **page 3, second paragraph**: the source tree, which is the *tree representation of the parsed XML source document* where each node of the document has a style sheet implies that said style sheets are identified by parsing the electronic document).

Regarding claim 7, which is dependent on claim 6, Walsh discloses that identifying a plurality of subset style sheets further includes matching values of the first level child elements to characteristic identifier of subset style sheets in a subset style sheet repository and selecting the plurality of subset style sheets from the subset style sheets in the subset style sheet repository based on whether the first child element values match characteristic identifiers for the subset style sheets (**page 8**: “The xsl: process instruction processes only selected children (or selected nodes from elsewhere in the tree). The xsl: process element has a required select attribute. All of the elements in the source tree that match the pattern specified in the select attribute are processed, and their instantiated templates are inserted into the result tree ...”; **page 3**: “the XSL



*processor begins at the root node in the source tree and processes it by finding the template in the style sheet that describes how that element should be displayed. Each node is then processed in turn until there is no more nodes left to be processed ...*"; the fact the XSL processor starts at *the root node* until the last child node to process the style sheet templates implies the plurality of style sheets includes a global style sheet, which is the style sheet at the root node, and the other subset style sheets of the children nodes).

Regarding claim 8, which is dependent on claim 1, Walsh discloses storing the composite style sheet in a composite style sheet repository (**page 7**: *"when xsl:process-children is encountered ... for each node, it finds the matching template and instantiates it. The sequence of instantiated templates is placed in the result tree at the location of the xsl:process-children element in the template*; placing the sequence of said instantiated templates in the result tree inherently shows that the instantiated templates included in the style sheets – as mentioned in page 3 - in the result tree must be conventionally stored in a style sheet directory, which is equivalent to a style sheet repository, for later use).

Regarding claim 14, which is dependent on claim 1, Walsh discloses identifying a plurality of subset style sheets based on characteristics of a client device to which the electronic document is to be sent (**page 6**: *"SXL formatting objects ... Using these formatting objects, it will be possible to write style sheets that can be rendered on many*

*different devices with reasonably comparable results*"; writing style sheets *for rendering documents on many different devices* implies that the subset style sheets of the portions of the documents are identified based on the characteristics of a client device to which the electronic document is to be sent).

Regarding claim 15, which is dependent on claim 2, Walsh discloses that the global style sheet includes a prefix glue that generates cards from the merged subset style sheet (page 3, What Does XSL Look Like?).

Claims 16-24, 29-30 are for an apparatus of method claims 1-8, 14-15, and are rejected under the same rationale.

Claims 31-38, 44-45 are for a computer program product of method claims 1-8, 14-15, and are rejected under the same rationale.

### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 9, 31 and 39 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walsh, *The Extensible Style Language: {XSL} Styling XML Documents*, Web Techniques, Jan 1999, vol. 4, iss. 1, pg. 49, 5 pgs, printed from ProQuest as pages 1-10 in view of Boag et al. (US Pat No. 6,589,291 B1, 7/8/03, filed 4/8/99).

Regarding independent claim 9, Walsh discloses:

- identifying a plurality of subset style sheets based on content of the electronic document (**page 7**: *"In this example, we'll use XSL to transform our XML document ... XSL knits all the fragments together to form the complete result tree ... Each template in our style sheet "instantiates" a small part of the result tree ... Every element in the template is either an XSL processing instruction ... each element is copied into the result tree until xsl:process-children is encountered" ... when xsl:process-children is encountered, the XSL processor processes each of the children of the current node. For each node, it finds the matching template and instantiates it. The sequence of instantiated templates is placed in the result*

*tree at the location of ...*"; the fact that each part of the document with associated style sheet is instantiated in the template shows that a plurality of subset style sheets are identified based on the content of the electronic document since it is clear that the XML document shown in Example 1 (page 6, last paragraph and page 2) has more than two elements, and thus a plurality of subset style sheets of these elements are identified)

- merging the plurality of subset style sheets to generate the composite style sheet  
(**page 7:** *"In this example, we'll use XSL to transform our XML document ... XSL knits all the fragments together to form the complete result tree. The Document Element.... Each template in our style sheet "instantiates" a small part of the result tree ... Every element in the template is either an XSL processing instruction ... each element is copied into the result tree until xsl:process-children is encountered" ...*; knitting all of the fragments together where each fragment is a style sheet template for a part of the XML document to form the Document Element inherently shows that the style sheet of the document is generated by merging all the fragments which are the subset style sheets of the portions of the XML document)

Walsh does not disclose:

- determining if a composite style sheet for the electronic document is present in a composite style sheet repository and, if a composite style sheet for the electronic document is not present in the composite style sheet repository, performing the two steps identifying and merging above

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Boag discloses checking if the end user devices are capable of supporting style sheet processors to provide a proper way to render the documents to users based on a selected style sheet either sending a document with the reference of a selected style sheet or sending a completely transformed document with a selected style sheet (col 3, lines 27-37; col 4, lines 30-57).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Boag to include determining if a composite style sheet for the electronic document is present in a composite style sheet repository and, if a composite style sheet for the electronic document is not present in the composite style sheet repository, performing identifying and merging steps for the following reason.

Checking the capabilities of supporting style processor implies checking the stored style sheets in the style sheet database of the user's device to see if the style sheet of the document is present in the style sheet database of the user's device. Further, the fact that Boag sends the completely transformed document with a selected style sheet to the client suggest the XML document with a plurality of style sheets is identified and merged in the transformation process before being sent to client.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Boag into Walsh since Boag suggests checking the capabilities of the user's device for the presence of a selected style sheet before sending documents providing the advantage to incorporate into Walse for properly transmitting documents according to a requested style sheet to client.

Claims 31 and 39 are for a computer program product of method claim 9, and are rejected under the same rationale.

15. Claims 10, 25, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walsh as applied to claim 2 above, and further in view of Feibus, Visual InterDev Improves, InformationWeek, September 28, 1998, Iss. 702, pg. 18A, 2 pgs, printed from ProQuest as pages 1-3.

Regarding claim 10, which is dependent on claim 2, Walsh does not disclose that the global style sheet includes electronic document navigational information.

Feibus discloses that technology from FrontPage 98 allows users to organize the Web documents in their site and automatically update the navigation-bar buttons that you can include as part of each document's style sheet (page 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Feibus into Walsh since Feibus shows that the navigation-bar button data can be included in each document's style sheet providing the advantage to incorporate into Walsh to generate a document with interaction feature by including the navigational data in the document's style sheet.

Claims 25 and 40 are for an apparatus and a computer program product of method claim 10, and are rejected under the same rationale.

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16. Claims 11-13, 26-28, 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walsh as applied to claim 1 above, and further in view of Boag et al. (US Pat No. 6,589,291 B1, 7/8/03, filed 4/8/99).

Regarding claim 11, which is dependent on claim 1, Walsh does not disclose determining if a client device to which the electronic document is to be sent is capable of rendering the electronic document using the composite style sheet, and sending the electronic document to the client device with a reference to the composite style sheet. Boag discloses determining if a client device to which the electronic document is to be sent is capable of rendering the electronic document using the selected style sheet, and sending the electronic document to the client device with a reference to the style sheet (col 3, lines 27-38, col 4, lines 28-36, 42-46).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Boag into Walsh since Boag discloses determining the capability of the client device before sending an electronic document with a selected style sheet and sending the electronic document to the client with a reference to said style sheet providing the advantage to incorporate into Walsh for reducing the transcoding work at the server as well as reducing the space for storing both the original documents and the transcoded documents at the server where the server has to provide documents involving with style sheets and transformation to the client.

Regarding claim 12, which is dependent on claim 11, Walsh does not disclose rendering the electronic document using the composite style sheet and sending the rendered electronic document to the client device, if the client device is not capable of rendering the electronic document using the composite style sheet.

Boag discloses rendering the electronic document using the composite style sheet and sending the rendered electronic document to the client device, if a client device is not capable of rendering the electronic document using the selected style sheet (col 3, lines 27-38, col 4, lines 28-36, 46-49, 55-58).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Boag into Walsh since Boag discloses determining the capability of the client device before sending an electronic document with a selected style sheet and sending the rendered document to the client using the selected style sheet providing the advantage to include in Walsh for a good way for sending the document to client in case of the inefficiency of the client device by obtaining a completely transcoded document with the selected style sheet at the server before the sending process.

Regarding claim 13, which is dependent on claim 12, Walsh discloses that the rendered electronic document is one of an HTML document and a WML document (page 3, What Does XSL Look Like?).



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Claims 26-28 are for an apparatus of method claims 11-13, and are rejected under the same rationale.

Claims 41-43 are for a computer program product of method claims 11-13, and are rejected under the same rationale.

### ***Response to Arguments***

17. Applicant's arguments with respect to claims 1-45 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue that Helgeson does not disclose identifying a plurality of style sheets based on the content of the electronic document since Helgeson shows a traditional type of document creation using a single style sheet (Remarks, page 12).

Examiner agrees.

Walsh discloses the argued features as in the claim rejections above.

### ***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lipkin (US Pat No. 6,721,747, 4/13/04, filed 1/12/01, priority 1/14/00).

KATARIYA et al. (US Pat App Pub No. 2002/0091789 A1, 7/11/02, filed 12/3/98).

Keating (US Pat App Pub No. 2002/0052895 A1, 5/2/02, filed 10/11/01).

Brooke et al. (US Pat No. 6,763,343 B1, 7/13/04, filed 9/20/99).

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Alexander (US Pat No. 6,732,331 B1, 5/4/04, filed 2/15/00).

Bickel, *Anatomy of an XML Server*, Web Techniques, Jun 1999, vol. 4, pg. 59, 5 pgs.

Floyd, Patterns in XSL, Web Techniques, Jun 1999, vol. 4, pg. 36, 5 pgs.

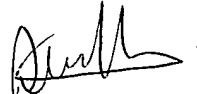
Passani, Web Techniques, Mar 2000, vol. 5, Iss. 3, pg. 48, 6 pgs.

Gee et al., Pervasive SAP, Intelligent Enterprise, Apr 10, 2000, pg. 10, 11 pgs.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cong-Lac Huynh whose telephone number is 571-272-4125. The examiner can normally be reached on Mon-Fri (8:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on 571-272-4124. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



STEPHEN S. HONG  
PRIMARY EXAMINER

Clh  
10/28/04